

## A NOTE ON AUSTRALIAN PEDICULIDS.

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No Pediculids have been described, as far as we know, as occurring on our native fauna, although it is likely that a few species will be found to infest the true Australian *Muridæ*. One is recorded below. Besides this, one may expect to find some on the various species of seals which, at times, frequent parts of the Australian coast. Marsupials apparently do not harbour true lice, their ectoparasitic insects being Hippoboscids and Mallophaga; the latter, strange to say, belonging to that division of Mallophaga which is mainly parasitic on birds. The bats and flying foxes are parasitised by Nycteribids, as in other parts of the world.

In this note, an attempt is made to give a census of the Pediculids known to occur in Australia. The presence of some species is recorded for the first time.

### MAN.

*Pediculus capitis*, L.

*P. vestimenti*, Nitzsch.

*Phthirius pubis*, L.

The presence of the first and third has been referred to on a few occasions in Australian medical journals. Mr. Froggatt (1907) and Mr. Lee (1908) also mention the three, but do not localise them. They are all cosmopolitan species and occur in every State of the Commonwealth. There is no need to make further reference to them.

MACAQUE MONKEY (*Macacus cynomolgus*).*Pedicinus eurygaster*.

We have specimens from Sydney and Melbourne Zoological Gardens.

## DOG.

*Linognathus piliferus*.

N.S.W., Victoria, Queensland—not previously recorded though fairly common. The Mallophagan parasite *Trichodectes canis* (*Tr. latus*) also occurs on dogs in Sydney, but is not so frequently met with as the pediculid.

## PIG.

*Hæmatopinus suis*, L. (syn. *H. urius*).

Tasmania, Victoria, N.S.W., Queensland, West Australia. . Lea (1908, p. 105) recorded the presence of this common parasite in Tasmania.

## CATTLE.

*Linognathus vituli*, L.*Hæmatopinus curysternus*, Nitzsch.

The former, the calf louse, was incidentally recorded by one of us (Johnston, 1911, p. 217, footnote—N.S.W.), and by Gilruth and Sweet (1911, p. 29; 1912, p. 28). We have specimens from N.S.W., Victoria and Queensland.

The latter species has been recorded by Gilruth and Sweet (1912, p. 28), presumably from Victoria. We have specimens from N.S.W., Victoria and Queensland.

Lea (1908, p. 104) records the presence of both in Tasmania.

## CAMEL (Dromedary).

*Hæmatopinus tuberculatus*, Burm.

We have identified as belonging to this species some specimens found by Dr. J. B. Cleland on a camel imported into North West Australia from India. Neumann (1909, p. 497) gives a description and refers (p. 498) to the finding of this species, which normally

parasitises the buffalo, on a camel in Australia (Nuttall's collection). As Dr. Cleland forwarded specimens to Prof. Nuttall also, it may be assumed with safety that it was these stragglers from West Australia that Neumann had before him. It is a pity that the name of the collector was not indicated, in the case of this interesting find.

#### HORSE.

*Hæmatopinus asini*, L.

N.S.W.—Collected by Mr. A. S. Le Souef.

Lea (1908, p. 104) mentions the species, but does not state whether it occurs in Tasmania.

#### SHEEP.

*Linognathus ovillus*, Neumann.

N.S.W., South Australia. Not previously recorded from Australia. This parasite has been recognised by one of us as occurring, though rarely, on sheep in certain localities of New South Wales. Mr. Desmond, Government Veterinarian, Adelaide, has recently forwarded the same species for determination, from two widely separated localities in South Australia. In 1906 Dr. Gilruth (1906, p. 309) met with it in New Zealand and figured it as *Hæmatopinus*, sp. Neumann later described it as *H. ovillus*, Gilruth giving a resume of the description in 1908.

#### RABBIT.

*Hæmodipsus ventricosus*, Denny.

N.S.W. This species is now recorded for the first time as occurring in the Commonwealth. Our specimens were collected in Sydney from rabbits sent from the southern district of N.S. Wales.

#### MOUSE.

Though pediculids have been carefully searched for, none have yet been found by us on this host.

RATS. (*Mus rattus alexandrinus*) and *Mus decumanus*.)

*Polyplax spinulosus*, Burm.

Recorded from both hosts, from Sydney, by one of us (Johnston, 1910, p. 20), who has specimens from Melbourne and Brisbane also from these two species of rats.

Neumann (1909, p. 515-7) has described a new species *Hæmatopinus (Polyplax) bidentatus* as infesting a *Mus rattus* from Lake Torrens, South Australia (Rothschild collection). In connection with this form Dr. Cleland has made certain inquiries, the result of which has been to make known the following facts. Dr. Borthwick, Commissioner of Public Health, Adelaide, forwarded to the Hon. Rothschild, through Professor Stirling, Director of the Adelaide Museum, a collection of ectoparasites from rats. Amongst them were fleas from the common rats, and pediculids from a water rat, *Hydromys chrysogaster*, captured at Torrens Lake, a sheet of fresh water in the vicinity of Adelaide. Lake Torrens is a depression, sometimes containing saline water, in the central portion of South Australia. It is safe to assume that this is the collection which Professor Neumann handled. The host of this new species of pediculid is thus an Australian rat and, not, as far as we are aware, the introduced house rat *Mus rattus*. Owing to the collector's name not having been recorded along with the description, some difficulty might have been experienced in tracing the specimens but for Dr. Cleland's kindness. One of us has received from the Bureau of Microbiology, Sydney, a pediculid, one millimetre long, taken from *H. chrysogaster*, caught on the shore of Sydney Harbour. The head is injured, but the general form of the parasite agrees with that described by Neumann. The setæ on the pleura are longer in our specimen, as they extend beyond the stigmata.

WATER RAT. (*Hydromys chrysogaster*.)

*Polyplax bidentatus*, Neumann.

S. Australia, Sydney.

(See under *Mus rattus* and *decumanus*.)

No doubt many of the forms here recorded as occurring in certain States of Australia are also present in others.

Mr. A. S. Le Souef and Dr. Cleland of Sydney, and Mr. Desmond, of Adelaide, have been kind enough to forward material to us.

- 1907 Froggatt—Australian Insects, Sydney.
- 1906 Gilruth—Ann. Rep. Dept. Agric., New Zealand, 1906.
- 1908 Gilruth—Ann. Rep. Dept. Agric., New Zealand, 1908.
- 1911 Gilruth and Sweet—*Onchocerca gibsoni*, etc—(Commonwealth Govt.), Sydney, 1911.
- 1912 Gilruth and Sweet—Proc. Roy. Soc., Victoria, 25, 1912.
- 1910 Johnston—Ann. Rep. Bureau Microbiology, Sydney, 1909 (1910).
- 1911 Johnston—Proc. Roy. Soc., Queensland, 1911, p. 207.
- 1908 Lea—Insect and Fungous Pests, etc., Hobart. Edit. 3. 1908.
- 1909 Neumann—Arch, d. Parasitol, 13, 1909, p. 497.
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